



**BEFORE THE FEDERAL COMMUNICATIONS COMMISSION**

**WASHINGTON, D.C 20554**

**To:** The Federal Communications Commission, Washington, DC 20554

**In the Matter of:** Connect America Fund (WC Docket No. 10-90)

**Comments of:** Hospital Sisters Health System (HSHS), HSHS Division (Western Wisconsin), HSHS Division (Eastern Wisconsin), HSHS Division (Southern Illinois), HSHS Division (Central Illinois)

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**Date:** January 9, 2012

**Re:** Comments for Further Notice of Proposed Rulemaking (NPRM) adopted by the Federal Communications Commission (FCC) Request for Comments on the proposed Connect America Fund (CAF); Broadband Public Interest Obligations/Additional Requirements—[XVII.A.3(§1029 and §1030)].

The Connect America Fund (CAF) is poised to transform the use of the Universal Service Fund (USF) into a vehicle that will make affordable, high quality broadband communication services available to all Americans. The FCC Report and Order and Further Notice of Proposed Rulemaking invites comment on the Broadband Public Interest Obligations and recommendations that are being considered regarding the proposal of Public Knowledge and the Benton Foundation:

- CAF recipients be required to make interconnection points and backhaul capacity available to the underserved high cost communities could deploy their own broadband networks [XVII.A.3(§1029)].
- Creation of a fund for a Technology Opportunities Program in order to assist communities with deploying their own broadband networks [XVII.A.3(§1030)].

We believe that the inclusive connection of Americans across the nation to affordable and high speed broadband will be a key economic driver in a global economy. Providing affordable service in areas with limited connectivity is important to economic growth, sustainability and stability. Furthermore, access to

broadband in underserved areas will assist in leveling the playing field for all Americans no matter their location. Hospital Sisters Health System (HSHS) agrees with the creation of a fund to support a Technologies Opportunities Program that will help communities deploy their own broadband networks.

- The maximum amount of monies that can be set aside with this type of focused program should be encouraged.
- Legal impediments to the Commission's running any of these pilots should be identified and removed.

Broadband plays a critical role in supporting applications that benefit rural America. Areas that are underserved and where traditional commercial providers have not deployed broadband are especially disadvantaged. Broadband applications are important to the healthcare sector since the industry is reacting to an economic marketplace imperative. New delivery models need to be created that are far more integrated and connected if this \$2.6 trillion healthcare industry is to successfully transform itself. The Commission should do everything within its power to enable other entities to further extend broadband coverage.

**Leveraging Economies of Scale:** We strongly encourage the FCC to include community anchor institutions and community area networks (CANs) in its Technology Opportunities Program funding. FCC funding to these groups would facilitate fiber infrastructure to bring broadband to rural areas. In addition, CANs composed of many stakeholder anchor institutions (city, county, schools, libraries, public safety, universities and hospitals) are able to create economies of scale in their expansion of broadband to rural areas. In our experience, the Chippewa Valley Inter-Networking Consortium ([CINC](#)) is an example of a model CAN that has helped expand fiber infrastructure to rural areas.

As articulated in the NPRM, the Commission's focus should be on:

- The promotion of connectivity
- Coverage that represents a spectrum which is optimally allocated and managed
- The enablement and development of urban/rural oriented wireless medical devices

HSHS believes it is essential over the next six to seven years to focus on and aggressively support rural fiber infrastructure to support universal broadband. In the immediate future, clinics, hospitals and other health care partners must become robust in building mobile data capabilities to ensure that rural patients have access to state-of-the-art diagnostic tools. Rural hospitals need advanced broadband that is:

- Fast—100 megabits (Mbps) to one gigabits per second (Gbps)
- Accessible—even for rural and critical access hospitals
- Reliable—with redundant links to assure mission critical applications are available 24/7 without the risk of downtime that could interrupt applications like telemedicine
- Affordable—to bend the cost curve

**Need for Advanced Broadband in Rural Areas:** In America today, a fragmented healthcare delivery system limits coordination across providers and health care settings and an outdated broadband infrastructure further impedes communication. Dense files of medical information cannot be shared in a timely and coherent fashion using low-capacity broadband. Commercially-provided private broadband—often analogous to a narrow two-lane road—cannot accommodate the advanced data exchange needs of hospitals (which are analogous to a multi-lane freeway). Essential applications such as accessing a Picture Archiving and Communications System (PACS) diagnostic file or sharing Electronic Health Records (EHR) require advanced broadband speeds of 100 megabits (Mbps) to one gigabits per second (Gbps).

These speeds are seldom available at any price in rural areas due to a lack of fiber optic infrastructure. Advanced broadband networks, such as dark fiber community area networks that are open networks as opposed to the traditional closed networks offered by traditional broadband providers, allows health care organizations to intentionally link patients, providers and care facilities. The result is superior value and improved care coordination, enhanced efficiency with reduced costs, and increased satisfaction for patients and providers.

**Eliminating Distance as a Barrier to the Best Possible Health Care:** In medical emergencies, fast and reliable access to health care professionals, health records and diagnostic images—using technology connected by advanced broadband—can be decisive factors that save lives and improve outcomes. Advance broadband networks in rural areas are foundational to health care integration because they remove the distance between caregiver and patient. Not only does advance broadband expand health care access, it expedites treatment, improves quality and reduces costs through enhanced communication, coordination, and efficiency across providers and settings. Advanced broadband allows the whole person to be cared for by a whole health care community throughout the continuum of care settings: hospitals, clinics, physician offices, rehabilitation and skilled nursing facilities, hospice and home. It breaks down barriers by supporting and coordinating patient and provider relationships with a free flow of critical information between providers. Broadband expands relationships to allow organizations to share medical technologies to link patients, providers and care facilities. Its connectivity helps bridge the “digital divide” between urban and rural hospitals and helps caregivers reach vulnerable populations (low income, minorities, older adults, and individuals with disabilities or who need chronic care). The result is improved care coordination, superior value through the elimination of variability, and innovative solutions that can address shortages of health care professionals. Advanced broadband also increases patient and provider satisfaction.

**Linking Patients and Providers:** Several case studies provide examples of the health care use of advanced broadband in rural and urban areas ([link](#)). To summarize these and other benefits, advanced broadband supports:

- Shared applications to:
  - 1) Coordinate and expedite patient care through file sharing including MEDITECH and SoftMed Electronic Health Records (EHR) & Picture Archiving & Communications System (PACS) CT and MRI diagnostic files
  - 2) Reduce costs through shared software applications (common telephone, paging, voice mail, email, & file storage and sharing)
  - 3) Support a [Tele-Radiology Image Hub](#) at Sacred Heart Hospital (Eau Claire, WI) to allow images to be sent or viewed between 43 healthcare facilities across western Wisconsin and eastern Minnesota using CINC fiber
- Telemedicine for interactive face-to-face physician examinations of patients to speed stroke, heart attack and other emergency treatments where minutes count
- Telemedicine to reduce the need for patients to travel long distances for care
- Faster emergency and trauma care by physician telepresence in emergency rooms & ambulances
- Improved health care access to reduce disparities in rural areas & vulnerable populations
- New solutions to alleviate shortages of health care professionals by allowing centrally located clinicians to expand “on call” coverage
- Development of a statewide health information exchange (HIE) network in Illinois and Wisconsin

**Linking Physicians, Care Facilities and Universities:** Advanced broadband links urban and rural providers, clinics and nursing centers. It facilitates dynamic partnerships to enable key players in the health care equation to seamlessly work together. It allows:

- Improved timely physician communication and coordination for better patient care
- Enhanced working partnerships between hospitals and universities
- Expanded distance continuing education opportunities and other continuing education

**Conclusion:** The Universal Service Fund must have a comprehensively modernized focus to ensure that rural areas have access to broadband infrastructure and services. HSHS actively supports the “Connect to Compete” initiative which is intended to close the broadband adoption gap for all Americans – especially low income individuals and families. It is imperative that digital literacy and supporting skills are significantly improved.

As the modernization of the USF program transitions to the CAF, HSHS supports the requirement to make interconnected points and backhaul capacity available so that unserved high cost communities would be able to deploy their own networks. Supporting dark fiber among community anchor institutions then connecting these community anchor institutions is a proven method of expanding broadband services to areas and communities that do not have the volume of subscribership necessary to support the traditional wired or wireless service providers. Traditional support programs limited participation to service silos (i.e. public safety, government, education, and healthcare) making aggregated collaboration and build out of advanced broadband community owned networks difficult if not impossible. By providing a fund for Technology Opportunities Program and requiring CAF recipients to provided backhaul capabilities, America will finally have an opportunity to create an infrastructure based on networks of networks that would help facilitate application and data sharing. Several logistical questions need to be considered when requiring CAF recipients be to make interconnection points and backhaul capacity available to the underserved high cost communities could deploy their own broadband networks [XVII.A.3(§1029)]. These questions and answer are listed below.

- How would such a requirement operate? *A percentage of supported fiber strands could be allocated or required to provide interconnection points and backhaul capacity.*
- Is it sufficient to require CAF recipients to negotiate in good faith with community broadband networks to determine a point of interconnection? *No a moderator such as USAC would be needed as the business interests would have a high potential for conflicts. If there are disputes, who should resolve them? USAC*
- Should there be reporting requirements associated with such an obligation (i.e., should CAF recipients be required to report annually on unfulfilled requests for interconnection from community broadband networks)? *Yes*
- What benefits might such a requirement bring that the Commission’s other universal service policies are not meeting? *The reporting requirement would serve as a barometer if the objective of interconnecting unserved communities is being met.*
- What would the costs of such a requirement be, on funding recipients and on administration of the requirement? *The cost should be minimal.*

Thank you for the opportunity to provide comments in response to your Notice of Proposed Rulemakings. We believe that by addressing these concerns, the Connect America Fund will create affordable and sustainable broadband connectivity to unserved rural areas in America without creating silos that exclude stakeholders. This action and funding would produce alignment and sustainability for an infrastructure to support cost-effective and equitable health care in rural areas.